CLAIMS:

1. An electric compressor, comprising:

an electric motor;

a compression mechanism that is driven by the electric motor to compress gas, wherein the compression mechanism includes a suction chamber and a discharge chamber;

a housing for accommodating the compression mechanism, wherein the housing defines a motor accommodating chamber that accommodates the electric motor, and wherein the pressure in the motor accommodating chamber is equal to the pressure in the suction chamber;

a first reservoir chamber located in the discharge chamber;

a second reservoir chamber defined about the discharge chamber;

a communicating passage for connecting the first reservoir chamber with the second reservoir chamber;

a restrictor located in the communicating passage;

an oil return passage for connecting the second reservoir chamber with the suction chamber; and

a connecting passage for connecting the motor accommodating chamber with the suction chamber.

2. The compressor according to claim 1, further comprising a suction passage for guiding gas from the outside of the housing to the suction chamber, wherein the motor accommodating chamber forms part of the suction passage, and wherein gas is guided into the suction chamber from the motor accommodating chamber through the connecting passage.

3. The compressor according to claim 1, wherein the compressor is of a scroll type and includes:

a stationary scroll having a stationary base plate and

a stationary volute portion, wherein the stationary base plate is fixed to the housing; and

a movable scroll having a movable base plate and a movable volute portion, wherein the movable scroll, together with the stationary scroll, defines a compression chamber between the volute portions,

wherein the stationary base plate has a first stationary face and a second stationary face, wherein the stationary volute portion extends from the first stationary face, and the second stationary face is opposite from the first stationary face, wherein the movable base plate has a first movable face and a second movable face, wherein the movable volute portion extends from the first movable face, and the second movable face is opposite from the first movable face,

wherein the motor causes the movable scroll to orbit so that the compression chamber is moved toward the center of the volute portions while decreasing the volume, whereby gas is compressed.

4. The compressor according to claim 3, wherein the second stationary face of the stationary scroll has a section exposed in the discharge chamber and a section exposed in the second reservoir chamber.

5. The compressor according to claim 3, wherein the second reservoir chamber is defined by a section of the second stationary face of the stationary scroll and a dividing wall extending from the housing to cover the section.

6. The compressor according to claim 3, wherein a partition member is located in the housing to face the second movable face of the movable scroll, wherein the second face and the partition member define a back pressure

chamber;

wherein the communicating passage includes a back pressure chamber, a pressurized oil supply passage for connecting the back pressure chamber with the first reservoir chamber, and an oil bleed passage for connecting the back pressure chamber with the second reservoir chamber, and

wherein the restrictor is located in at least one of the pressurized oil supply passage and the oil bleed passage.

7. The compressor according to claim 6, wherein the restrictor has a constriction located in the pressurized oil passage, and a constriction or an adjuster valve located in the oil bleed passage.

8. The compressor according to claim 3, wherein the surface of the movable scroll is plated with nickel phosphorus.

9. The compressor according to claim 3, wherein a partition member is located in the housing to face the second movable face of the movable scroll, wherein the second movable face and the partition member define a back pressure chamber, wherein an elastic body is located between the second movable face and the partition member, the elastic body urging the movable scroll toward the stationary scroll, and wherein the elastic body seals the back pressure chamber and the suction chamber from each other.

10. The compressor according to claim 9, wherein the elastic body is a doughnut-shaped plate.

11. The compressor according to claim 9, wherein an annular projection extends from the second movable face, and

wherein the annular projection is pressed against the elastic body, thereby sealing the back pressure chamber.

12. The compressor according to claim 3, wherein the oil return passage is formed in a lower peripheral portion of the stationary scroll.

13. The compressor according to claim 1, wherein the oil return passage extends from a bottom portion of the second reservoir chamber to the suction chamber.

14. The compressor according to claim 1, wherein the oil return passage connects the second reservoir chamber with a bottom portion of the suction chamber.

15. The compressor according to claim 1, wherein the restrictor includes a valve that operates according to the difference between a pressure in the first reservoir chamber and a pressure in the second reservoir chamber.

16. The compressor according to claim 1, wherein the restrictor includes a check valve that prevents backflow of oil from the second reservoir chamber to the first reservoir chamber.

17. The compressor according to claim 1, wherein the motor has an axis of rotation that extends substantially horizontally.

18. The compressor according to claim 1, wherein the connecting passage connects a bottom portion of the motor accommodating chamber with the suction chamber.

19. An electric compressor, comprising:

an electric motor;

a compression mechanism that is driven by the electric motor to compress gas, wherein the compression mechanism includes a suction chamber and a discharge chamber;

a housing for accommodating the compression mechanism, wherein the housing defines a motor accommodating chamber that accommodates the electric motor, and wherein the pressure in the motor accommodating chamber is equal to the pressure in the suction chamber;

a first reservoir chamber located in the discharge chamber;

a second reservoir located in the motor accommodating chamber;

a communicating passage for connecting the first reservoir chamber with the second reservoir chamber;

a restrictor located in the communicating passage;

an oil return passage for connecting the second reservoir chamber with the suction chamber; and

a connecting passage for connecting the motor accommodating chamber with the suction chamber.

20. The compressor according to claim 19, further comprising a suction passage for guiding gas from the outside of the housing to the suction chamber, wherein the motor accommodating chamber forms part of the suction passage, and wherein gas is guided into the suction chamber from the motor accommodating chamber through the connecting passage.

21. The compressor according to claim 19, wherein a partition member is located in the housing and between the electric motor and the compression mechanism, and wherein the second reservoir chamber is defined by covering a section of a face of the partition member that faces the motor with a cover.

22. The compressor according to claim 21, wherein the motor has a rotary shaft, and the cover is arranged about the rotary shaft.

23. The compressor according to claim 21, wherein the oil return passage is formed in a lower peripheral portion of the partition member.

24. The compressor according to claim 19, wherein the compressor is of a scroll type and includes:

a stationary scroll having a stationary base plate and a stationary volute portion, wherein the stationary base plate is fixed to the housing; and

a movable scroll having a movable base plate and a movable volute portion, wherein the movable scroll, together with the stationary scroll, defines a compression chamber between the volute portions,

wherein the movable base plate has a first face and a second face, wherein the volute portion extends from the first face, and the second face is opposite from the first face,

wherein the motor causes the movable scroll to orbit so that the compression chamber is moved toward the center of the volute portions while decreasing the volume, whereby gas is compressed.

25. The compressor according to claim 24, wherein a partition member is located in the housing to face the second face of the movable scroll, wherein the second face and the partition member define a back pressure chamber;

wherein the communicating passage includes a back pressure chamber, a pressurized oil supply passage for connecting the back pressure chamber with the first reservoir chamber, and an oil bleed passage for connecting the back pressure chamber with the second reservoir chamber,

and

wherein the restrictor is located in at least one of the pressurized oil supply passage and the oil bleed passage.

26. The compressor according to claim 25, wherein the restrictor has a constriction located in the pressurized oil passage, and a constriction or an adjuster valve located in the oil bleed passage.

27. The compressor according to claim 24, wherein the surface of the movable scroll is plated with nickel phosphorus.

28. The compressor according to claim 24, wherein a partition member is located in the housing to face the second face of the movable scroll, wherein the second face and the partition member define a back pressure chamber, wherein an elastic body is located between the second face and the partition member, the elastic body urging the movable scroll toward the stationary scroll, and wherein the elastic body seals the back pressure chamber and the suction chamber from each other.

29. The compressor according to claim 28, wherein the elastic body is a doughnut-shaped plate.

30. The compressor according to claim 28, wherein an annular projection extends from the second face of the movable scroll, and wherein the annular projection is pressed against the elastic body, thereby sealing the back pressure chamber.

31. The compressor according to claim 19, wherein the oil return passage extends from a bottom portion of the

second reservoir chamber to the suction chamber.

32. The compressor according to claim 19, wherein the oil return passage connects the second reservoir chamber with a bottom portion of the suction chamber.

33. The compressor according to claim 19, wherein the restrictor includes a valve that operates according to the difference between a pressure in the first reservoir chamber and a pressure in the second reservoir chamber.

34. The compressor according to claim 19, wherein the restrictor includes a check valve that prevents backflow of oil from the second reservoir chamber to the first reservoir chamber.

35. The compressor according to claim 19, wherein the motor has an axis of rotation that extends substantially horizontally.

36. The compressor according to claim 19, wherein the connecting passage connects a bottom portion of the motor accommodating chamber with the suction chamber.